

## ABSTRACT OF THE DISCLOSURE

A method for determining genus, species, race and/or geographical origin of biological materials, by directly cleaving with enzymatic methods the fibrillary structures such as feathers, down, hair or horn to form a pool of cleaved peptides, without prior dissolution of structure proteins; and wherein the pool of cleaved peptides obtained from fibrillary structure proteins is preferably subjected to MALDI-TOF mass spectroscopy without the application of separating and isolating techniques, and wherein the mass spectrograms obtained are adjusted using reference mass spectrograms and the suitable specific mass peaks are used to quantify elements such as feathers, down, scales horn and/or hair which are foreign to the species.